

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: March 17, 2001, 09:43:21 ; Search time 20.85 Seconds

(without alignments)
249.762 Million cell updates/sec

Title: US-09-451-291-1

Perfect score: 1511

Sequence: 1 MRIFAVRIFMTYVHLLNAFT.....KCGIDPTNSKSKSDTHLEET 290

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 174772 seqs, 17957048 residues

Total number of hits satisfying chosen parameters: 174772

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/2/1aa/5A.COMB.pep:*
2: /cgn2_6/ptodata/2/1aa/5B.COMB.pep:*
3: /cgn2_6/ptodata/2/1aa/6.COMB.pep:*
4: /cgn2_6/ptodata/2/1aa/PCTUS.COMB.pep:*
5: /cgn2_6/ptodata/2/1aa/Backfile1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match Length	ID	Description
1	177.5	11.7	306	2	US-08-147-772-4
2	177.5	11.7	306	2	US-08-456-104-8
3	177.5	11.7	306	2	US-08-101-624-25
4	177.5	11.7	306	3	US-08-153-262-4
5	177.5	11.7	306	3	US-08-479-744A-31
6	177.5	11.7	306	3	US-08-280-757B-31
7	177.5	11.7	306	3	US-09-159-135-4
8	172	11.4	288	2	US-08-147-772-2
9	172	11.4	288	2	US-08-456-104-6
10	172	11.4	288	2	US-08-101-624-23
11	172	11.4	288	2	US-08-751-767A-6
12	172	11.4	288	3	US-08-153-262-2
13	172	11.4	288	3	US-08-479-744A-29
14	172	11.4	288	3	US-08-280-757B-29
15	172	11.4	288	3	US-09-159-135-2
16	172	11.4	288	4	PCT-US95-02576-19
17	169.5	11.2	306	4	PCT-US95-02576-17
18	169.5	11.2	306	4	PCT-US95-02576-2
19	161.5	10.7	323	4	PCT-US94-09642-2
20	161.5	10.7	329	2	US-08-456-104-2
21	161.5	10.7	329	2	US-08-101-624-2
22	161.5	10.7	329	3	US-08-479-744A-2
23	161.5	10.7	329	3	US-08-280-757B-2
24	161.5	10.7	329	4	PCT-US95-02576-23
25	158.5	10.5	208	3	US-08-630-172-15
26	154.5	10.2	589	2	US-08-724-394A-1
27	144	9.5	581	2	US-08-724-394A-3
28	139.5	9.2	319	1	US-08-597-495B-22

29	138	9.1	581	2	US-08-724-394A-2	Sequence 2, Appli
30	137	9.1	365	2	US-08-979-424-3	Sequence 3, Appli
31	127.5	8.4	309	2	US-08-456-104-4	Sequence 4, Appli
32	127.5	8.4	309	3	US-08-479-744A-23	Sequence 23, Appli
33	127.5	8.4	309	3	US-08-280-757B-23	Sequence 21, Appli
34	127.5	8.4	309	3	PCT-US95-02576-21	Sequence 13, Appli
35	127.5	8.4	314	4	PCT-US95-02576-13	Sequence 2, Appli
36	126	8.3	1106	4	US-08-180-195-2	Sequence 2, Appli
37	126	8.3	1106	1	US-08-168-917-2	Sequence 2, Appli
38	126	8.3	1106	1	US-08-477-329-2	Sequence 2, Appli
39	126	8.3	1106	2	US-08-475-458-2	Sequence 2, Appli
40	126	8.3	1106	2	US-08-460-510-2	Sequence 2, Appli
41	126	8.3	1106	2	US-08-460-490-2	Sequence 2, Appli
42	126	8.3	1106	3	US-08-980-400-2	Sequence 2, Appli
43	126	8.3	1106	3	US-08-462-728-4	Sequence 4, Appli
44	126	8.3	1106	4	PCT-US92-00730-2	Sequence 2, Appli
45	126	8.3	1106	4	PCT-US92-00862-2	Sequence 2, Appli

ALIGNMENTS

RESULT 1
US-08-147-772-4
Sequence 4, Application US/08147772
Patent No. 5858776 *
GENERAL INFORMATION:
APPLICANT: Ostrand-Rosenberg, Suzanne
APPLICANT: Baskar, Sivasubramanian
APPLICANT: Glincher, Laurie H.
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
TITLE OF INVENTION: Tumor Cells With Increased Immunogenicity
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/147.772
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-003
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1

1. AUTHORS: GRAY, GARY S.
 2. AUTHORS: GIMM, CLAUDE D.
 3. AUTHORS: LOMBARD, DAVID B.
 4. AUTHORS: ZHOU, LIANG-JI
 5. AUTHORS: WHITE, MICHAEL
 6. AUTHORS: FINGEROTH, JOYCE D.
 7. AUTHORS: GRIBBEN, JOHN G.
 8. AUTHORS: NADLER, LEE M.
 9. TITLE: Structure, Expression, and T Cell Costimulatory
 10. TITLE: Lymphocyte Activation Antigen B7
 11. JOURNAL: Journal of Experimental Medicine
 12. VOLUME:
 13. ISSUE:
 14. PAGES:
 15. DATE: IN PRESS
 16. RELEVANT RESIDUES IN SEQ ID NO: 25: From -37 to 269
 17. US-08-101-624-25

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11.7%: Score 177.5; DB 2, Length 306;
Query Match Similarity 26.6%; Pred. No. 3.4e-10;
Best Local Similarity 26.6%; Pred. No. 3.4e-10;
Matches 57; Conservative 36; Mismatches 92; Indels 29; Gaps 11.

QY 55 VYEMEDKNIIQFVCEEDLKVOHSSYRQARLLKQDLSLNAIQTIDVKLODAGVRC 114
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Db 68 IYQKHDKKVVLSYIAKK-LKV-WPEYKNRT-LYDNTY---SLIIIGLYLSDRGTYSC 119
QY 115 MI-----SYGADYKRTIVKYNAPYKINORILYVD--PYTSEHILTQAE-GYPKAE 164
      : : ||| : : ||| : : ||| : : ||| : : ||| : : ||| : : |||
Db 120 VQAKKRGYGVKHALVLYKLISIKADFSPN---ITESGNPSADTKRITCFASGQPKRC 175
QY 165 VMTSSDOHVLGSKTTTNSKREELFVNSTLNTNTTNEIFQTRKRIDPENRTAEL 224
      ||| ||| : : ||| ||| : : ||| ||| : : ||| ||| : : ||| |||
Db 176 FSYLENGRE-LGQINTTTSQDPESELYTSSQDLDFNTTRNHTIKLIRYDA---HYSED 231
QY 225 VPELPLAHPNPERTHLVILGAILLCLGVALTFI 258
      ||| ||| : : ||| ||| : : ||| ||| : : ||| ||| : : ||| |||
Db 232 FTWEKPEPDPDSKNLIVLFGA---GFCVATIVV 262

RESULT 4
US-08-153-262-4
; Sequence 4, Application US/08153262
; Patent No. 6071716
; GENERAL INFORMATION:
; APPLICANT: FREEMAN, GORDON J.
; APPLICANT: FREEDMAN, ARNOLD S.
; APPLICANT: NADLER, LEE M.
; TITLE OF INVENTION: DNA Encoding B7, A New Member
; TITLE OF INVENTION: Of The Igg Superfamily With Unique Expression On
; TITLE OF INVENTION: Activated And Neoplastic B Cells.
; NUMBER OF SEQUENCES: 4
; CORRESPONDENCE ADDRESSES:
; ADDRESS: The Dana-Farber Cancer Institute
; STREET: 44 Blinney Street
; CITY: Boston
; STATE: Massachusetts
; COUNTRY: U.S.A.
; ZIP: 02115
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette, 3.50 inch, 720kb storage
; COMPUTER: IBM Personal System 2; Model 30
; OPERATING SYSTEM: MS/DOS
; SOFTWARE: WordPerfect 5.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/153,262
; FILING DATE:
; CLASSIFICATION:
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/751,306
; FILING DATE: 28-AUG-1991
; ATTORNEY/AGENT INFORMATION:

```

NAME: HART, JULIA D.
REGISTRATION NUMBER: 33132
REFERENCE/DOCKET NUMBER: DFCI-116.1
TELECOMMUNICATION INFORMATION:
TELEPHONE: (203) 255-8900
TELEFAX: (203) 255-2846
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways; binds to CD28+
DESCRIPTION: T cells, transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMATI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGEROTH, JOYCE D.
AUTHORS: GRIBBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity Of The Murine Homologue Of The Human B
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:
PAGES:
DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO: 4: From -37 to 269
US-08-153-262-4
Query Match 11.7%; Score 177.5; DB 3; Length 306;
Best Local Similarity 26.6%; Pred. No. 3,4e-10;
Matches 57; Conservative 36; Mismatches 92; Indels 29; Gaps 11;

QY 55 VYWMEDKNIIQFGEEDLKVOHSSYRORARLLKQDLSGNAALQITWKLODAGVNC 114
DB 68 IYWKHKVVLSTYACK--LKV-WPEYKNFT--LYNTTY---SLIIIGVLSDRGTYSQ 119
QY 115 MI-----SYGADYKRITVKNVAPYKINQRIILVVD---PYTSEHLEQAE-GYPKAE 164
DB 120 VYQKKRGTYGVKHLALVKLSIKADFSTPN---ITESCNPASDTJRKIQCFASGCFPKR 175
QY 165 VYWTSSDHOVLGSKTTTTSKREKLFENVYSLIRITNTTTEIYCFRRDRPENTHAE 224
DB 176 FSWLENGRE-LPGINTTISODPESELTYTSSQLDFMTNRHTIKCLIKYDA--HVSED 231
QY 225 VPELPPLHPNERTHLVILGAILLCIGVALTFE1 258
DB 232 FTWEKPEDEPPDSKNLTVLFGA---GFGAVITYV 262
RESULT 5
US-08-479-744A-31
Sequence 31, Application US/08479744A
Patent No. 6084067
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 35
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD, LLP
STREET: 60 State Street
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/479,744A
FILING DATE: June 7, 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/280,757
FILING DATE: 26-JUL-1994
APPLICATION NUMBER: 08/109,393
FILING DATE: 28-AUG-1993
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways; binds to CD28+
DESCRIPTION: T cells, transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1

[illegible]

Sequence 31, Application US/08280757B
Patent No. 6130316

GENERAL INFORMATION:

APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and
NUMBER OF SEQUENCES: 53

CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
City: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: IBM PC compatible
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/280,757B
FILING DATE: 26-Jul-1994
CLASSIFICATION: 435

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-July-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPT-004CP2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear

MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
DESCRIPTION: T cells, transmembrane protein

FEATURE:

NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic

FEATURE:

NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence

FEATURE:

NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence

FEATURE:

NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence

NAME/KEY: Ig V-set domain

LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGEROTH, JOYCE D.
AUTHORS: GRIBBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity Of The Murine Homologue Of The Human B
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:
PAGES:
DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO: 31: From -37 to 269
US-08-280-757B-31

Query Match 11.7%; Score 177.5; DB 3; Length 306;
Best Local Similarity 26.6%; Pred. No. 3,4e-10;
Matches 57; Conservative 36; Mismatches 92; Indels 29; Gaps 11;

QY 55 VYMEEDKNIIEFHGEDEKLVHSSYRORARLKLDLSGNALQITDVKLODAGVRC 114
DB 68 IYWKHKRVVSLVSTAGK-LKV-WPEYKNT--LYDNTTY---SLIIGLVLSRGRITSC 119
QY 115 MI-----SYGADYKRITVKNAPYKINORILVVD---PVTSEHETLCOAE-GYPRAE 164
DB 120 VYQKRGKGTGVKHLALVKLSIKADFSPPN---ITESGNPSADTKRITCFASGGFPRPR 175
QY 165 VYMTSSDHQVLSGKTTTNTNSKRREKLENVMTSLRINTTNEIFCTRRRLDPEENHMAEL 224
DB 176 FSWMEGNRE-LPGINTTISQDPESELYTISQDLPFNTTRNHTIKLKYGDA---HVSSED 231
QY 225 VPELPLAHPNERTHYIIGAILLCGVALTFI 258
DB 232 FTWEKPPEDPDPSKNTLVFGA---GFGAVITVV 262

RESULT 7
US-09-159-135-4
Sequence 4, Application US/09159135
Patent No. 6149905
GENERAL INFORMATION:
APPLICANT: Ostrand-Rosenberg, Suzanne
APPLICANT: Baskar, Silvasubramanian
APPLICANT: Glimcher, Laurie H.
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
TITLE OF INVENTION: Tumor Cells With Increased Immunogenicity
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/159,135
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/147,772
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPT-003
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
DESCRIPTION: T cells, transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGEROTH, JOYCE D.
AUTHORS: GRIBBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity Of The Murine Homologue Of The Human B
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:

DESCRIPTION: for CD28 T cell surface antigen; transmembrane protein

AUTHORS: FREEMAN, GORDON J.

AUTHORS: FREEDMAN, ARNOLD S.
AUTHORS: SEGIL, JEFFREY M.
AUTHORS: LEE, GRACE
AUTHORS: WHITMAN, JAMES F.
AUTHORS: NADLER, LEE M.
TITLE: B7, A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplastic B Cells
JOURNAL: The Journal of Immunology
VOLUME: 143
ISSUE: 8
PAGES: 2714-2722
DATE: 15-OCT-1989
RELEVANT RESIDUES IN SEQ ID NO: 2: From -26 to 262
US-08-147-772-2

Query Match 11.4%; Score 172; DB 2; Length 288;
Best Local Similarity 22.1%; Pred. No. 1.1e-09;
Matches 58; Conservative 56; Mismatches 97; Indels 52; Gaps 12;

QY 25 KDLVVEYSGNMTECKFPEVKQDLAALIVYEMEDKNIIQFVHGEGDLKVOHSSYRQR 84
DB 43 KEVATLSCGHNVSVE-----ELAQTRITYQKEKKMVLTMSCGMNIMPEYKN----- 89
QY 85 ARLLKQSLGNALQITDVYKLDAGVYRCMT-SYGGADYKR-----ITVKNAPYNK 136
DB 90 -RTIFD--ITNNLSIVILALRPSDEGYECVLYKEKDAKREHLAEVLSKADFPPTS 146
QY 137 INRIILVDPVTSHELTQCAE-GYKPAEVIWTSDDQVLSGKTTTNSKREKLEAVTS 195
DB 147 ISPEI---PTSNIRRICSTSGGFPEPHLSWLENGEE-LNAINTVVSODPELEAVSS 202
QY 196 TLRINTTNEIFYC-----TFRRLDPEENHTAEVLEIPELPAHPNERTHLVIL 244
DB 203 KLPENMTTNSFCLIKYGLRVNQTFNNMTTQOEHPDNLPSMAI-----TLISVN 255
QY 245 GALLLCGVALTFIF--RLRGR 265
DB 256 GIFVIC---CLTYCFAPRCRERR 275

RESULT 9
US-08-456-104-6
Sequence 6, Application US/08456104
Patent No. 5861310
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7-2 AND B7-3 WITH INCREASED
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/456,104
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624;
FILING DATE: 26-JUL-1993;
APPLICATION NUMBER: 08/109,393;
APPLICATION NUMBER: 19-AUG-1993
ATTORNEY/AGENT INFORMATION:

NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-008
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 6:
SEQUENCE CHARACTERISTICS:
LENGTH: 288 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-456-104-6

Query Match 11.4%; Score 172; DB 2; Length 288;
Best Local Similarity 22.1%; Pred. No. 1.1e-09;
Matches 58; Conservative 56; Mismatches 97; Indels 52; Gaps 12;

QY 25 KDLVVEYSGNMTECKFPEVKQDLAALIVYEMEDKNIIQFVHGEGDLKVOHSSYRQR 84
DB 43 KEVATLSCGHNVSVE-----ELAQTRITYQKEKKMVLTMSCGMNIMPEYKN----- 89
QY 85 ARLLKQSLGNALQITDVYKLDAGVYRCMT-SYGGADYKR-----ITVKNAPYNK 136
DB 90 -RTIFD--ITNNLSIVILALRPSDEGYECVLYKEKDAKREHLAEVLSKADFPPTS 146
QY 137 INRIILVDPVTSHELTQCAE-GYKPAEVIWTSDDQVLSGKTTTNSKREKLEAVTS 195
DB 147 ISPEI---PTSNIRRICSTSGGFPEPHLSWLENGEE-LNAINTVVSODPELEAVSS 202
QY 196 TLRINTTNEIFYC-----TFRRLDPEENHTAEVLEIPELPAHPNERTHLVIL 244
DB 203 KLPENMTTNSFCLIKYGLRVNQTFNNMTTQOEHPDNLPSMAI-----TLISVN 255
QY 245 GALLLCGVALTFIF--RLRGR 265
DB 256 GIFVIC---CLTYCFAPRCRERR 275

RESULT 10
US-08-101-624-23
Sequence 23, Application US/08101624
Patent No. 5942607
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 5942607el CTLA4/CD28 Ligands and
TITLE OF INVENTION: Uses Therefor
NUMBER OF SEQUENCES: 25
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/101,624
FILING DATE: 26-JUL-1993
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207

LOCATION: 192 to 194
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 198 to 200
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 104
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 105 to 202
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEDMAN, GORDON J.
AUTHORS: FREEDMAN, ARNOLD S.
AUTHORS: SEGIL, JEFFREY M.
AUTHORS: LEE, GRACE
AUTHORS: WHITMAN, JAMES F.
AUTHORS: NADLER, LEE M.
TITLE: B7, A New Member Of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplastic B Cells
JOURNAL: The Journal of Immunology
VOLUME: 143
ISSUE: 8
PAGES: 2714-2722
DATE: 15-OCT-1989
RELEVANT RESIDUES IN SEQ ID NO: 2: From -26 to 262
US-08-153-262-2

Query Match 11.4%; Score 172; DB 3; Length 288;
Best Local Similarity 22.1%; Pred. No. 1, le-09;
Matches 58; Conservative 56; Mismatches 97; Indels 52; Gaps 12;
QY 25 KDLVVEYGSNMTECKFPYKOLDLALIVWEMEDKNIIOPVHGEEDLKVOHSSYROR 84
DB 43 KEVATLSCGNVSE-----ELAQTIRIYQKEKKVLTVMGSDGMNIMPEYKN---- 89
QY 85 ARLKQDLSGNAALQTTDKLDAGYRCMT-SYSGADYK-----ITVYVNAIPYK 136
DB 90 -RIIFD--ITNNLSIVLALRPSDEGYECVLYKEDAFKREHLAEVTLVYKADPPPS 146
QY 137 INRIILVVDVTSBHELTQAE-GYPRAEVITWSSDHOVLSGKTTTNSKREKLFNVS 195
DB 147 ISDEI---PTSNIRRLITCSGFPFPHLSWLENGEE-LNAINTVYSQDPETELAVSS 202
QY 196 TLRINTTNEIFYC-----TFRRLDPEENHTAEVLVPELPLAHPNERTHLVIL 244
DB 203 KLDFNMNTNHSFCLIKYGLRVNQFNMNTTKQEHFPPDLPSMAI-----TISLVN 255
QY 245 GAILLCIGVALTPIF--RLKGR 265
DB 256 GIFVIC--CLTYCFAPRCRERR 275
RESULT 13
US-08-479-744A-29
Sequence 29, Application US/08479744A
Patent No. 6084067
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
TITLE OF INVENTION: No. 6084067el CTLA4/CD28 Ligands and
NUMBER OF SEQUENCES: 55
CORRESPONDENCE ADDRESS:

ADDRESSEE: LAHIVE & COCKFIELD, LLP
STREET: 60 State Street
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/479,744A
FILING DATE: June 7, 1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/280,757
FILING DATE: 26-JUL-1994
APPLICATION NUMBER: 08/109,393
FILING DATE: 28-AUG-1993
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 288 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B cell activation antigen; natural ligand
DESCRIPTION: for CD28 T cell surface antigen; transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -34 to -1
IDENTIFICATION METHOD: amino terminal sequencing of
IDENTIFICATION METHOD: soluble protein
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 208
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 209 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular domain
LOCATION: 236 to 254
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 19 to 21
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 55 to 57
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 64 to 66

IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 152 to 154
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 173 to 175
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 177 to 179
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 192 to 194
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: N-linked glycosylation
LOCATION: 198 to 200
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 104
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 105 to 202
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: FREEDMAN, ARNOLD S.
AUTHORS: SEGIL, JEFFREY M.
AUTHORS: LEE, GRACE
AUTHORS: WHITMAN, JAMES F.
TITLE: B7, A New Member of The Ig Superfamily With
TITLE: Unique Expression On Activated And Neoplastic B Cells
JOURNAL: The Journal of Immunology
VOLUME: 143
ISSUE: 8
PAGES: 2714-2722
DATE: 15-OCT-1989
RELEVANT RESIDUES IN SEQ ID NO: 29: From -26 to 262
US-08-479-744A-29

Query Match 11.4%; Score 172; DB 3; Length 288;
Best Local Similarity 22.1%; Pred. No. 1.le-09;
Matches 58; Conservative 56; Mismatches 97; Indels 52; Gaps 12;

QY 25 KDLVVEGSMTECKRPVEKQDLALYYWEMEDKNITQFVGEEDLAVQHSYROR 84
DB 43 KEVATLSCGHVAYE-----ELAQTRIVWQEKRMVILMMSGDMNINPEYKN--- 89
QY 85 ARLLKDLISLGNALQITDVKLQDAGVRCMI-SYGADYR-----ITVKVAPYKN 136
DB 90 -RTIFD--ITNNLSIVILALRPDSEGTVECVLKEKDAFRKREHLAEVTLVKADFTIPS 146
QY 137 INQRLVDPVTSSEHETQAE-GYKRAEVIWTSDDQVLSGKTTTNSKREKLEFNTS 195
DB 147 ISDFE---PTSNIRRICSTSGGFPBPHLSMLENGEE-LNAINTVSQDDETELYAVSS 202
QY 196 TLRINTTNEFYC-----TFRRLDPENHTAEVILPEPLAHPNERTHLVIL 244

DB 203 KIDFNMNTNHSFMCILIKYGLHVRNQTGMNNTTKQEHFPDNLPSMAI-----TLISVN 255
QY 245 GALLICIGVALTFIF--RLRGR 265
DB 256 GIFVIC---CLTYCFAPRCRER 275

RESULT 14
US-08-280-757B-29
Sequence 29, Application US/08280757B
Patent No. 6130316
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: Uses thereof
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/280,757B
FILING DATE: 26-JUL-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-0040P2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 29:
SEQUENCE CHARACTERISTICS:
LENGTH: 288 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B cell activation antigen; natural ligand
DESCRIPTION: for CD28 T cell surface antigen; transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -34 to -1
IDENTIFICATION METHOD: amino terminal sequencing of
IDENTIFICATION METHOD: soluble protein
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 208
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 209 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence

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Query Match      11.4% Score 172; DB 3; Length 288;  
Best Local Similarity    22.1%; Pred. No. 1.1e-09;  
Matches   58; Conservative     56; Mismatches   97; Indels       52; Gaps        12;
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Dy

25 KDLVVEYGSMMTECKPPEVKQDIALAIYYWEMEDKNIIIOFVGHEDDLKVOHSSRQR 84
| : | : | : | : | : | : | : | : | : | : | : | : | :
Db KEVALTSGCHNVSV-----ELAOTRIYWOKKKMVLTMSCGMNINPERYN---- 89

QY 85 ARLLKQLSLGNALQITDVKLADAGVRCMI-SYGADYKR-----ITYKVAPYRK 136
| : | : | : | : | : | : | : | : | : | : | : | : | :
Db -RTIFD--ITTNNLSIVILARPRSDGTVCECVLKYEKDAFREHLAEVTLSVKADEFPPS 146

QY 137 INORLVDPPTSEHELTCQA-E-GPKAAEVIWTSSDHGYLSGKTITTSKEEEKLFNTS 195
| : | : | : | : | : | : | : | : | : | : | : | : | :
Db 147 ISDFEI---PTSINKRIICSTGGFPPEPHLSMLENGEE-LNAINTVSODETELAYASS 202

QY 196 TLRIRTTNEIEFYC-----TFERRLPDEENHTAELVIPELPLAHPPERHLVIL 244
| : | | | | | : | : | : | : | : | : | : | : | : | :
Db 203 KLDERMTTNHSFMCLIKRGHLRVNOTFWWNTKQHHPFDNLIPSWAT-----TLISVN 255

Dy 245 GAILLIGUALFTF-RLRGR 265
| : | : | : | : | : | : | : | : | : | : | : | : | :
Db 256 GIFVIC---CTCYCAPRCREER 275

RESULT 15
US-09-159-135-2
Sequence 2, Application US/09159135
Patent No. 6149905

GENERAL INFORMATION:
APPLICANT: Ostrand-Rosenberg, Suzanne
APPLICANT: Baskayr, Sivasubramanian
APPLICANT: Glimcher, Laurie H.
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.

TITLE OF INVENTION: Tumor Cells With Increased Immunogenicity

NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/159,135
FILING DATE:

CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/147,772
FILING DATE:

ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-003

TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEX: (617) 227-5941

INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 288 amino acids
TYPE: amino acid
TOPOLOGY: linear

MOLECULE TYPE: protein
DESCRIPTION: B cell activation antigen; natural ligand
DESCRIPTION: for CD8 T cell surface antigen; transmembrane protein

FEATURE:
NAME/KEY: signal sequence

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: March 17, 2001, 09:44:51 ; Search time 20.85 Seconds
(Without alignments)
249.762 Million cell updates/sec

Title: US-09-451-291-3
Perfect score: 1516
Sequence: 1 MRFAGIIFTACHLRAFT.....KGVEDTSSKNRNDQFEET 290

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 174772 seqs, 17957048 residues

Total number of hits satisfying chosen parameters: 174772

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database :
1: /cgn2_6/prodata/2/iaa/5a_COMB.pep:*
2: /cgn2_6/prodata/2/iaa/5b_COMB.pep:*
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4: /cgn2_6/prodata/2/iaa/PCTUS_COMB.pep:*
5: /cgn2_6/prodata/2/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match Length	ID	Description
1	192	12.7	306 2	US-08-147-772-4 Sequence 4, Appli
2	192	12.7	306 2	US-08-456-104-8 Sequence 8, Appli
3	192	12.7	306 2	US-08-101-624-25 Sequence 25, Appli
4	192	12.7	306 3	US-08-153-262-4 Sequence 4, Appli
5	192	12.7	306 3	US-08-479-744A-31 Sequence 31, Appli
6	192	12.7	306 3	US-08-280-757B-31 Sequence 31, Appli
7	192	12.7	306 3	US-09-159-135-4 Sequence 17, Appli
8	184	12.1	306 4	PCT-US95-02576-17 Sequence 2, Appli
9	177	11.7	320 4	PCT-US95-02576-2 Sequence 2, Appli
10	176.5	11.6	323 4	PCT-US94-09642-2 Sequence 2, Appli
11	176.5	11.6	329 2	US-08-456-104-2 Sequence 2, Appli
12	176.5	11.6	329 2	US-08-101-624-2 Sequence 2, Appli
13	176.5	11.6	329 2	US-08-479-744A-2 Sequence 2, Appli
14	176.5	11.6	329 3	US-08-280-757B-23 Sequence 2, Appli
15	176.5	11.6	329 4	PCT-US95-02576-23 Sequence 23, Appli
16	176	11.6	589 2	US-08-724-394A-1 Sequence 1, Appli
17	173.5	11.6	581 2	US-08-724-394A-3 Sequence 3, Appli
18	160	10.6	365 2	US-08-979-424-3 Sequence 3, Appli
19	159.5	10.5	288 2	US-08-147-772-2 Sequence 6, Appli
20	159.5	10.5	288 2	US-08-456-104-6 Sequence 6, Appli
21	159.5	10.5	288 2	US-08-101-624-23 Sequence 23, Appli
22	159.5	10.5	288 3	US-08-153-262-2 Sequence 6, Appli
23	159.5	10.5	288 3	US-08-479-744A-29 Sequence 29, Appli
24	159.5	10.5	288 3	US-08-280-757B-29 Sequence 29, Appli
25	159.5	10.5	288 4	PCT-US95-02576-19 Sequence 2, Appli
26	159.5	10.5	288 4	PCT-US95-02576-19 Sequence 19, Appli
27	159.5	10.5	288 4	US-08-630-172-15 Sequence 15, Appli
28	156	10.3	208 3	US-08-630-172-15 Sequence 15, Appli

29	152.5	10.1	581 2	US-08-724-394A-2 Sequence 2, Appli
30	146.5	9.7	342 2	US-08-724-394A-6 Sequence 6, Appli
31	144	9.5	540 2	US-08-724-394A-4 Sequence 4, Appli
32	135	8.9	610 2	US-08-724-394A-5 Sequence 5, Appli
33	124	8.2	309 2	US-08-456-104-4 Sequence 4, Appli
34	124	8.2	309 3	US-08-479-744A-23 Sequence 23, Appli
35	124	8.2	309 3	US-08-280-757B-23 Sequence 23, Appli
36	124	8.2	309 4	PCT-US95-02576-21 Sequence 21, Appli
37	124	8.2	314 4	PCT-US95-02576-13 Sequence 13, Appli
38	119.5	7.9	388 3	US-09-188-930-275 Sequence 275, App
39	119.5	7.9	553 2	US-08-263-911-9 Sequence 9, Appli
40	118	7.8	281 1	US-08-487-748A-9 Sequence 9, Appli
41	118	7.8	281 1	US-08-487-748A-10 Sequence 10, Appli
42	118	7.8	281 3	US-08-480-070C-10 Sequence 10, Appli
43	118	7.7	281 3	US-08-829-525-10 Sequence 10, Appli
44	116.5	7.7	110 3	US-08-479-744A-45 Sequence 45, Appli
45	116.5	7.7	110 3	US-08-280-757B-45 Sequence 45, Appli

ALIGNMENTS

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RESULT 1
US-08-147-772-4
; Sequence 4, Application us/08147772
; Patent No. 5858776
;
GENERAL INFORMATION:
;
APPLICANT: Ostrand-Rosenberg, Suzanne
APPLICANT: Baskar, Sivabramanian
APPLICANT: Glmcher, Laurie H.
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
;
TITLE OF INVENTION: Tumor Cells With Increased Immunogenicity
;
NUMBER OF SEQUENCES: 4
;
CORRESPONDENCE ADDRESS:
;
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
;
COMPUTER READABLE FORM:
;
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
;
APPLICATION NUMBER: US/08/147,772
;
FILING DATE:
;
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
;
APPLICATION NUMBER:
;
FILING DATE:
;
ATTORNEY/AGENT INFORMATION:
;
NAME: Mandragoras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-003
TELECOMMUNICATION INFORMATION:
;
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
;
INFORMATION FOR SEQ ID NO: 4:
;
SEQUENCE CHARACTERISTICS:
;
LENGTH: 306 amino acids
;
TYPE: amino acid
;
TOPOLOGY: linear
;
MOLECULE TYPE: protein
;
DESCRIPTION: B lymphocyte activation antigen; Ig
;
DESCRIPTION: Superfamily member; T cell costimulatory signal
;
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
;
DESCRIPTION: T cells, transmembrane protein
;
FEATURE:
;
NAME/KEY: signal sequence
;
LOCATION: -37 to -1

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1 IDENTIFICATION METHOD: similarity with known
2 IDENTIFICATION METHOD: sequence
3 OTHER INFORMATION: hydrophobic
4 FEATURE:
5 NAME/KEY: extracellular domain
6 LOCATION: 1 to 210
7 IDENTIFICATION METHOD: similarity with known
8 IDENTIFICATION METHOD: sequence
9 FEATURE:
10 NAME/KEY: transmembrane domain
11 LOCATION: 211 to 235
12 IDENTIFICATION METHOD: similarity with known
13 IDENTIFICATION METHOD: sequence
14 FEATURE:
15 NAME/KEY: intracellular (cytoplasmic) domain
16 LOCATION: 236 to 269
17 IDENTIFICATION METHOD: similarity with known
18 IDENTIFICATION METHOD: sequence
19 FEATURE:
20 NAME/KEY: Ig V-set domain
21 LOCATION: 1 to 105
22 IDENTIFICATION METHOD: similarity with known
23 IDENTIFICATION METHOD: sequence
24 FEATURE:
25 NAME/KEY: Ig C-set domain
26 LOCATION: 106 to 199
27 IDENTIFICATION METHOD: similarity with known
28 IDENTIFICATION METHOD: sequence
29 PUBLICATION INFORMATION:
30 AUTHORS: FREEMAN, GORDON J.
31 AUTHORS: GRAY, GARY S.
32 AUTHORS: GIMAI, CLAUDE D.
33 AUTHORS: LOMBARD, DAVID B.
34 AUTHORS: ZHOU, LIANG-JI
35 AUTHORS: WHITE, MICHAEL
36 AUTHORS: FINGERROTH, JOYCE D.
37 AUTHORS: GIBBEN, JOHN G.
38 AUTHORS: NADLER, LEE M.
39 TITLE: Structure, Expression, and T Cell Costimulatory
40 TITLE: Activity Of The Murine Homologue Of The Human B
41 TITLE: Lymphocyte Activation Antigen B7
42 JOURNAL: Journal of Experimental Medicine
43 VOLUME:
44
45 ISSUE:
46 PAGES:
47 DATE: IN PRESS
48 RELEVANT RESIDUES IN SEQ ID NO: 4: FROM -37 to 269
49
50 OS-08-147-772-4

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Query Match	12.7%	Score 192	DB 2	Length 306
Best Local Similarity	23.9%	Pred. No. 9,5e-12		
Matches	63	Conservative	46	Mismatches 117, Indels 38, Gaps 9

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DB	50	VLLPCRYNSPHDESEDR--LYWQHKDVLYSLVAGKLKWPXEY-----KNRTL	96
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QY	94	KGNA--AAQITVEVKQODAGVYCCII-----SYGADYKRIILKNVAPRYKINORISYVP	145
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DB	97	YDNTYLSLILGLVLSDRGTYSVVQKKRGYGVKHLALVATSLIKADSPFNITESGNP	156
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QY	146	ATSEHELICQAE-GYPEAEVIVITNSDHQVPSGKRSYVTSRTGMLLNTVSSLRVNTATAD	204
	:	:	:
DB	157	SADTRKTCFAGSGGPPKPFESWLENGRE-LPQINTTISODPSESELYTTISSQIDFNTNRH	215
	:	:	:
QY	205	VFYCTFWRSQPPQNTAEELIIPELPATHPQQRTHWVLLGSLILFLIVASTVLLPFRKQV	264
	:	:	:
DB	216	TIKCLI---KYGDVAVSEDFTEWKEPPEDPDPCKNTLVLFAGAGCAVITTVVIVII-----	268
	:	:	:
QY	265	RMLDYKCKVEEDTSSKNRNDTOFE	288
	:	:	:
DB	269	-----KCFCKHRSCFRRNEASRE	286
	:	:	:

RESULT 2
 US-08-456-104-8
 : Sequence 8, Application US/08456104
 : Patent No. 5861310
 :
 : GENERAL INFORMATION:
 :
 : APPLICANT: Freeman, Gordon J.
 : APPLICANT: Nadler, Lee M.
 : APPLICANT: Gray, Gary S.
 : TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7
 : NUMBER OF SEQUENCES: 8
 : CORRESPONDENCE ADDRESS:
 : ADDRESSEE: LAHIVE & COCKFIELD
 : STREET: 60 State Street, Suite 510
 : CITY: Boston
 : STATE: Massachusetts
 : COUNTRY: USA
 : ZIP: 02109
 :
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: Patent Release #1.0, Version #1.25
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/456,104
 :
 : FILING DATE:
 : CLASSIFICATION: 424
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER: 08/101,624;
 : FILING DATE: 26-JUL-1993;
 : APPLICATION NUMBER: 08/109,393;
 : APPLICATION NUMBER: 19-AUG-1993
 : ATTORNEY/AGENT INFORMATION:
 : NAME: Mandragouras, Amy E.
 : REGISTRATION NUMBER: 36,207
 : REFERENCE/DOCKET NUMBER: RPI-008
 : TELECOMMUNICATION INFORMATION:
 : TELEPHONE: (617) 227-7400
 : TELEFAX: (617) 227-5941
 : INFORMATION FOR SEQ ID NO: 8:
 : SEQUENCE CHARACTERISTICS:
 : LENGTH: 306 amino acids
 : TYPE: amino acid
 : TOPOLOGY: linear
 : MOLECULE TYPE: protein
 :
 : US-08-456-104-8

[illegible]

TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
DESCRIPTION: T cells, transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGERROTH, JOYCE D.
AUTHORS: GRIBBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity Of The Murine Homologue Of The Human B7
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:
PAGES:
DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO: 31: From -37 to 269

```

Query Match      12.7%   Score 192; DB 3; Length 306;
Best Local Similarity    23.9%; Pred. No. 9, 5e-12;
Matches        63; Conservative    46; Mismatches    117; Indels    38; Gaps    9;
QY      36 VTMEGRF--PYVREIDLLALVYWEKEDQVLFVAAGEDLKPQHSHNFGRASLPKDQLL 93
          |||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::|||::
50 VLLPRYSNPHEDESDR---LYWRKHDKVYLVSIVAGIKTKLVPEY-----KNRTL 96

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0y      94   KGN A--AQIDYVKLQDAGVCCII-----SYGADYKRITLKVNAPYKRIORIISVDP 145
Db      97   YDNNTTYSILIIIGLVLSDRGTSCVVQKKERETGYVKHLALVKLSIKADEFTPNITEGNNP 156
0y      146  ATSEHELICQAE-GYPEAEVIWTSNDHQPYSGKRSVTTSRTEGMLNVTSSLRVNAATAND 204
Db      157  SADNRKITCFASGGCPKPRPSFMLENGRE-LPGIMWTTSIQDESELTYISSQLDENFTTRNH 215
0y      205  VFYCFFMNSQGCONHTAIIIPELPAHPHPONRKHWWLLGSILLFLVSVIVLLFLRKYV 264
Db      216  TIKLCI---KYGDAHVSDFTWEKRPEDPPDSKNITLVLFAGFGCAIVTVAVVII---- 268
0y      265  RMLDYKCGVEDTSSKNRNDDTOFE 288
Db      269  -----KCFCRHRCFRRENESRE 286

RESULT        6
US-08-280-757B-31
; Sequence 31, Application US/08280757B
; Patent No. 6130316
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESS: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/280.757B
FILING DATE: 26-JUL-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RI-004CP2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1

```

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1      RESULT      6
2      US-08-280-757B-31
3      ; Sequence 31 Application US/08280757B
4      Patent No. 6130316
5      GENERAL INFORMATION:
6      APPLICANT: Freeman, Gordon J.
7      APPLICANT: Nadler, Lee M.
8      APPLICANT: Gray, Gary S.
9      APPLICANT: Greenfield, Edward
10     TITLE OF INVENTION: No. 6130316e1 CTL4/CD28 ligands and
11     TITLE OF INVENTION: Uses Therefor
12     NUMBER OF SEQUENCES: 53
13     CORRESPONDENCE ADDRESS:
14     ADDRESSEE: LAHIVE & COCKFIELD
15     STREET: 60 State Street, Suite 510
16     CITY: Boston
17     STATE: Massachusetts
18     COUNTRY: USA
19     ZIP: 02109
20     COMPUTER READABLE FORM:
21     MEDIUM TYPE: Floppy disk
22     COMPUTER: IBM PC compatible
23     OPERATING SYSTEM: PC-DOS/MS-DOS
24     SOFTWARE: Patentln Release #1.0, Version #1.25
25     CURRENT APPLICATION DATA:
26     APPLICATION NUMBER: US/08/280,757B
27     FILING DATE: 26-JUL-1994
28     CLASSIFICATION: 435
29     PRIOR APPLICATION DATA:
30     APPLICATION NUMBER: 08/101,624
31     FILING DATE: 26-JULY-1993
32     APPLICATION NUMBER: 08/109,393
33     FILING DATE: 19-AUG-1993
34     APPLICATION NUMBER: 08/147,773
35     FILING DATE: 3-NOV-1993
36     ATTORNEY/AGENT INFORMATION:
37     NAME: Mandragouras, Amy E.
38     REGISTRATION NUMBER: 36,207
39     REFERENCE/DOCKET NUMBER: RFI-004CP2
40     TELECOMMUNICATION INFORMATION:
41     TELEPHONE: (617) 227-7400
42     TELEFAX: (617) 227-5941
43     INFORMATION FOR SEQ ID NO: 31:
44     SEQUENCE CHARACTERISTICS:
45     LENGTH: 306 amino acids
46     TYPE: amino acid
47     TOPOLOGY: linear
48     MOLECULE TYPE: protein
49     DESCRIPTION: B lymphocyte activation antigen; Ig
50     DESCRIPTION: superfamily member; T cell costimulatory signal
51     DESCRIPTION: via activation of CD28 pathways, binds to CD28+
52     DESCRIPTION: T cells, transmembrane protein
53     FEATURE:
54     NAME/KEY: signal sequence
55     LOCATION: -37 to -1

```

IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain
LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGERROTH, JOYCE D.
AUTHORS: GRIEBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity Of The Murine Homologue Of The Human B
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:
PAGES:
DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO: 31: From -37 to 269
US-08-280-757B-31

Query Match 12.7%; Score 192; DB 3; Length 306;
Best Local Similarity 23.9%; Pred. No. 9.5e-12;
Matches 63; Conservative 46; Mismatches 117; Indels 38; Gaps 9;

36 VTMCGRF--PVERELDLALVYWEKEEOYIQVAGEEDIKPOHSNFRGASLPKQDL 93
50 VLLPCRYNSPHEDESESR--IYQKHDKVYLVYAGKLKWPPEY-----KNRTL 96
94 KGN--ALQITDKQADGVCYCI--SYGADYKRTLKVNAPYKINORISDP 145
97 YDNTTYSILILGLVLSDRGTSCVYQKKEGTGYKHALYKLSKADFSPTNTESGNP 156
146 ATSEHELICQAE-GYPEAEVITWNSDQPVSGKRSVTSRTGMLNVTSSLRYNATAND 204
157 SADTKRITCFASGFPKPRFSMLENGRE-LPGINTTISQDESELYTSSQLDENTTNH 215
205 VFYGTFRSGOGNHTAELIPELPAHPONRTHWVLGSLFLVYVTVLLFLRKQV 264
216 TIKLI--KYGDAHVSEDEFTWEPPEPDPDSKNTLVLFAGGAVITVVIVII-- 268
265 RMLDVEKGVEDTSSKNRNDTOFE 288
269 -----KCFCKHRSCFRNEASRE 286

RESULT 7
US-09-159-135-4
Sequence 4, Application US/09159135
Patent No. 6149905
GENERAL INFORMATION:
APPLICANT: Ostrand-Rosenberg, Suzanne
APPLICANT: Baskar, Sivasubramanian
APPLICANT: Glimcher, Laurie H.
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
TITLE OF INVENTION: Tumor Cells With Increased Immunogenicity
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/159,135
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/147,772
FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-003
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
DESCRIPTION: B lymphocyte activation antigen; Ig
DESCRIPTION: superfamily member; T cell costimulatory signal
DESCRIPTION: via activation of CD28 pathways, binds to CD28+
DESCRIPTION: T cells, transmembrane protein
FEATURE:
NAME/KEY: signal sequence
LOCATION: -37 to -1
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
OTHER INFORMATION: hydrophobic
FEATURE:
NAME/KEY: extracellular domain
LOCATION: 1 to 210
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: transmembrane domain
LOCATION: 211 to 235
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: intracellular (cytoplasmic) domain
LOCATION: 236 to 269
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: Ig V-set domain

LOCATION: 1 to 105
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
FEATURE:
NAME/KEY: 1g C-set domain
LOCATION: 106 to 199
IDENTIFICATION METHOD: similarity with known
IDENTIFICATION METHOD: sequence
PUBLICATION INFORMATION:
AUTHORS: FREEMAN, GORDON J.
AUTHORS: GRAY, GARY S.
AUTHORS: GIMMI, CLAUDE D.
AUTHORS: LOMBARD, DAVID B.
AUTHORS: ZHOU, LIANG-JI
AUTHORS: WHITE, MICHAEL
AUTHORS: FINGEROTH, JOYCE D.
AUTHORS: GRIBBEN, JOHN G.
AUTHORS: NADLER, LEE M.
TITLE: Structure, Expression, and T Cell Costimulatory
TITLE: Activity of The Murine Homologue Of The Human B
TITLE: Lymphocyte Activation Antigen B7
JOURNAL: Journal of Experimental Medicine
VOLUME:
ISSUE:
PAGES:
DATE: IN PRESS
RELEVANT RESIDUES IN SEQ ID NO: 4: From -37 to 269
US-09-159-135-4

Query Match 12.7%; Score 192; DB 3; Length 306;
Best Local Similarity 23.9%; Pred. No. 9.5e-12;
Matches 63; Conservative 46; Mismatches 117; Indels 38; Gaps 9;

QY 36 VTMECRF--PYRELDLALVYWEKEDVOYIQFVAGEEDLKPOHSNFRGRASLPKQDL 93
DB 50 VLLPCRYNSPHDESEDR---IYQKHDKVYLSVIAKGLKWPEY-----KNRTL 96
QY 94 KGN--ALQITVYKQDAGVYCCII-----SYGADYKRTILKVNAPYKINQRISSVP 145
DB 97 YDNTYTSLLILGLVLSRGYSCVQKKERGTGVKHLALVKLSKADSTPNITSGNP 156
QY 146 ATSEHELICQAE-GYPEAEVIWNSDHPVSGKRSVTSRTSGMLNVTSSLRVNATAND 204
DB 157 SADTKRITCFASGGFPKPRFSMLENGRE-LPGINTTISQDESELYTTISQDLDFNTTNH 215
QY 205 VFYCTFWRSQPGQNTAEILIPELPATHPQNRTHVLLGSLILFLIVSTVLLFLRKOV 264
DB 216 TIKCL---KYGDAVSEDFTEWKEPPEDPDSKNTLVLFAGFGAVITVVIVVIL---- 268
QY 265 RMLDVEKCGVEDTSSKNRNDTOFE 288
DB 269 -----KCFCKHRSCFRRNEASRE 286

RESULT 8
PCT-US95-02576-17
Sequence 17, Application PC/TUS9502576
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: Novel Forms of T Cell Costimulatory Molecules
TITLE OF INVENTION: and Uses Therefor
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/02576
FILING DATE:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/205,697
FILING DATE: 02-Mar-1994
ATTORNEY/AGENT INFORMATION:
NAME: Mandigaouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-120CPPC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 17:
SEQUENCE CHARACTERISTICS:
LENGTH: 306 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US95-02576-17

Query Match 12.1%; Score 184; DB 4; Length 306;
Best Local Similarity 23.5%; Pred. No. 6.3e-11;
Matches 62; Conservative 46; Mismatches 118; Indels 38; Gaps 9;

QY 36 VTMECRF--PYRELDLALVYWEKEDVOYIQFVAGEEDLKPOHSNFRGRASLPKQDL 93
DB 50 VLLPCRYNSPHDESEDR---IYQKHDKVYLSVIAKGLKWPEY-----KNRTL 96
QY 94 KGN--ALQITVYKQDAGVYCCII-----SYGADYKRTILKVNAPYKINQRISSVP 145
DB 97 YDNTYTSLLILGLVLSRGYSCVQKKERGTGVKHLALVKLSKADSTPNITSGNP 156
QY 146 ATSEHELICQAE-GYPEAEVIWNSDHPVSGKRSVTSRTSGMLNVTSSLRVNATAND 204
DB 157 SADTKRITCFASGGFPKPRFSMLENGRE-LPGINTTISQDESELYTTISQDLDFNTTNH 215
QY 205 VFYCTFWRSQPGQNTAEILIPELPATHPQNRTHVLLGSLILFLIVSTVLLFLRKOV 264
DB 216 TIKCL---KYGDAVSEDFTEWKEPPEDPDSKNTLVLFAGFGAVITVVIVVIL---- 268
QY 265 RMLDVEKCGVEDTSSKNRNDTOFE 288
DB 269 -----KCFCKHRSCFRRNEASRE 286

RESULT 9
PCT-US95-02576-2
Sequence 2, Application PC/TUS9502576
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: Novel Forms of T Cell Costimulatory Molecules
TITLE OF INVENTION: and Uses Therefor
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/02576
FILING DATE:
PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/205,697
FILING DATE: 02-Mar-1994
ATTORNEY/AGENT INFORMATION:
NAME: Mandragouras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BMT-120CPC
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 320 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US95-02576-2

Query Match 11.7%, Score 177, DB 4, Length 320;
Best Local Similarity 23.6%, Pred. No. 3,5e-10;
Matches 56; Conservative 45; Mismatches 108; Indels 28; Gaps 8;

QY 36 VTMEGRF--PVERELDLALVYWEKEDQVYQVAGEEDLKPOHSNFRGRASLTKDQL 93
DB 50 VLLPGRVSPHEDESEDR---TYWQHDKVVLSTAGKLTWPEY-----KNRTL 96
QY 94 KGN--ALQITDVKLQDAGVCCII-----SYGADYKRITLKNAPYRKINRISVDP 145
DB 97 YDNTYLSLIIIGLVLSDBGTSQVQKKRGTYEVKHLALVLSIKAFSPNITESGNP 156
QY 146 ATSEHELICQAE-GYPEAEVITWNSDHQPVSGKRSVTSFTEGMILNVTSLIRVATAND 204
DB 157 SADTKRITCFASGGPKRFPSFWLENRGRE-LPGINTTISQDESELEYLTISSQLDFNTNRH 215
QY 205 VEYCTFMSQGNQNTAEILPELPATHPQNRTHVILGSLLEFLIYVSTVLLFLR 261
DB 216 TIKLI---KIGDAHVSDEFTWEKPEPDPDSKNTLVLFAGAGFAVITVVIVLIK 269

RESULT 10
PCT-US94-09642-2
Sequence 2, Application PC/TUS9409642
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: Purified Mammalian CTLA-4 Binding
TITLE OF INVENTION: Protein and Related Reagents
NUMBER OF SEQUENCES: 2
CORRESPONDENCE ADDRESS:
ADDRESSEE: Schering-Plough Corporation, M-3-W
STREET: One Giralda Farms
CITY: Madison
STATE: New Jersey
COUNTRY: USA
ZIP: 07940-1000
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: Apple Macintosh IIcx
OPERATING SYSTEM: System software 7.1
SOFTWARE: Microsoft Word 5.1a
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/09642
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/120,606
FILING DATE: 13-SEP-1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/116,882
FILING DATE: 03-SEP-1993
ATTORNEY/AGENT INFORMATION:
NAME: Blasdale, John H. C.
REGISTRATION NUMBER: 31,895
REFERENCE/DOCKET NUMBER: DX0390K1

TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-822-7398
TELEFAX: 201-822-7039
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 323 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
PCT-US94-09642-2

Query Match 11.6%, Score 176.5, DB 4, Length 323;
Best Local Similarity 23.1%, Pred. No. 4e-10;
Matches 73; Conservative 57; Mismatches 109; Indels 77; Gaps 15;

QY 18 AFTTAPKDLVYER-GSVVTMECRPVERELDLALVYWEKEDQVYQVAGEEDLK 75
DB 11 AFLTGAAPLKIQAAYFNETADLPQFANSQNSLSELVFWQDOENLVLENYLGEKED 70
QY 76 PQHSNFRGRASLPKQQLKGNALQITDVKLQDAGVCCIIISYGADYKRITLKNAPYR 135
DB 71 SVHSKYMGRTSFSDS-----SWTLKHLNLIQDKGLIQCIT-----HKKKPGMIR--IH 118
QY 136 KINQIRISVDPATSEHELI-----CQA-EGYPEAEVITWNSDHQPVSGKRSV 180
DB 119 QNSELVLANPSQDEIYISNITENYVINTFCSSIHGYPEK-----KMSV 165
QY 181 -----TSRTGGM-----LLNVTSSLRV---NATADVRYC-----TWRSSP 215
DB 166 LRTKNSLTEDGIMQKSDQNTVELYDVISLSVSFPDVTSMNTEFCILETDKTRLLSP 225
QY 216 GONHTAEILPELPATHPQNRTHV--LLGSLLEFLIYVSTVLLFLKRVMLVERKQ 273
DB 226 ---FSEILEDPPPPDHP-----WITAVLPVITICVAVFCILKMKKKKKRPRNSYKCG 277
QY 274 VEDTSSKNRNDTQFEE 289
DB 278 TWTMEERESEQTKKRE 293

RESULT 11
US-08-456-104-2
Sequence 2, Application US/08456104
Patent No. 5861310
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
TITLE OF INVENTION: TUMOR CELLS MODIFIED TO EXPRESS B7-2 AND B7-3 WITH INCREASED
NUMBER OF SEQUENCES: 8
CORRESPONDENCE ADDRESS:
ADDRESSEE: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/456,104
FILING DATE:
CLASSIFICATION: 424
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624;
FILING DATE: 26-JUL-1993;
APPLICATION NUMBER: 08/109,393;
APPLICATION NUMBER: 19-AUG-1993
ATTORNEY/AGENT INFORMATION:

RESULT 12
 US-08-101-624-2
 : Sequence 2, Application US/08101624
 : Patent No. 5942607
 :
 : GENERAL INFORMATION:
 :
 : APPLICANT: Freeman, Gordon J.
 : APPLICANT: Nadler, Lee M.
 : APPLICANT: Gray, Gary S.
 : TITLE OF INVENTION: No. 5942607/1 CTLA4/CD28 Ligands and
 : TITLE OF INVENTION: Uses Therefor
 : NUMBER OF SEQUENCES: 25
 : CORRESPONDENCE ADDRESSES:
 : ADDRESSEE: LAHIVE & COCKFIELD
 : STREET: 60 State Street, Suite 510
 : City: Boston
 : STATE: Massachusetts
 : COUNTRY: USA
 : ZIP: 02109
 :
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: PatentIn Release #1.0, Version #1.25
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/101,624
 : FILING DATE: 26-JUL-1993
 : CLASSIFICATION: 514
 : PRIOR APPLICATION DATA:
 : APPLICATION NUMBER:

QY	18	AFITTPAKOLYAAVE-	GSNVTMEORREPERERBDLALVYVMEKEDEBOYIQV-AGEB	LK	75
Dp	17	AFILSGAALPLQOAFN	ETNFTADLPQOFANSQOSTISELYVFWQOENVLNEYVJGKERFD		76
QY	76	PQSNFRGASLPKDQOL	LKGNALQITDVKLQDAGVYCIIISYGADYKRITLKVNAFYR		135
Dp	77	SVASHKMGRTSFDSD-	SWTLRLHNLOIKRKGLOCIIT	-----HHKPGTMR--IH	124
QY	136	KIMORISVPAFSEHELI	-----COA-EGYBEAVALWITNSDHQPVSGKRSY		180
Dp	125	QMSSELVLANRSGEYI	PISNITENYVIMLCSHGHPERK	-----KMSV	171
QY	181	-----TSTRTGM-----	LANVTSLSRY-----NATANDVEYC-----TFWNSQP		215
Dp	172	LRTKMSLTLEYGIMOKS	QDNVTELYDVYSISVSPPDYTSNMTFCLLETDRKTRLLSP		231
QY	216	GONHTAELLIPDLPA	THPQNRTHV--LIGSILFLIVASVYLLFLRKROYMRMBVEKCG		273
Dp	232	---FSTLEDDPQPPDH	P-----MIVAVLPYVICVMFCLILMKWKKKRPNRSYKCG		283
QY	274	VEDTSSKNNDQOFEE			289
Dp	284	TNTMRESEQTKKRE			299

RESULT 13
 US-08-479-744A-2
 : Sequence 2, Application US/08479744A
 : Patent No. 6084067
 : GENERAL INFORMATION:
 : APPLICANT: Freeman, Gordon J.
 : APPLICANT: Nadler, Lee M.
 : APPLICANT: Gray, Gary S.
 : TITLE OF INVENTION: Nos. 6084067e1 CTLA4/CD28 Ligands and
 : TITLE OF INVENTION: Uses Therefor
 : NUMBER OF SEQUENCES: 55
 : CORRESPONDENCE ADDRESSES:
 : ADDRESSEE: LAHIVE & COCKFIELD, LLP
 : STREET: 60 State Street
 : CITY: Boston
 : STATE: Massachusetts
 : COUNTRY: USA
 : ZIP: 02109
 : COMPUTER READABLE FORM:
 : MEDIUM TYPE: Floppy disk
 : COMPUTER: IBM PC compatible
 : OPERATING SYSTEM: PC-DOS/MS-DOS
 : SOFTWARE: Patentin Release #1.0, Version #1.25
 : CURRENT APPLICATION DATA:
 : APPLICATION NUMBER: US/08/479,744A
 : FILING DATE: June 7, 1995
 : CLASSIFICATION: 435

PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/280,757
FILING DATE: 26-JUL-1994
APPLICATION NUMBER: 08/109,393
FILING DATE: 28-AUG-1993
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragoras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP3
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 329 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-479-744A-2

Query Match 11.6%; Score 176.5; DB 3; Length 329;
Best Local Similarity 23.1%; Pred. No. 4.1e-10;
Matches 73; Conservative 57; Mismatches 109; Indels 77; Gaps 15;

QY 18 AFTTAPRLDYVEY-GSNVTMECRFYERELDLALVYWEKEDEYOIOYV-AGEEDLK 75
17 AFLTSGAPRLKIOAYFNTADLPQFANSQNSLSELYVFMODENLALNEVYLKEKEFD 76
QY 76 PQHNSFRGRALPQDLKGNALQITDKODAGVCCISYSGADVKRTITLKNAAYR 135
77 SVHSKRYMGRTSDSD-----SWTLRLHNLQIKDKGLYQCII-----HKKKPTGMIR--IH 124
DB 136 KINORISVDPATSEHELI-----COA-EGYPEAEVITWNSDHPVSGKRSV 180
125 QMNSLSVLANFSQPEIYISNITENYINLTCSIHGYPEPK-----KMSV 171
QY 181 -----TTSRTGEM-----LLNVTSSLRV---NATANDVRYC-----TFMRROP 215
172 LTRTKNSTEYDGIQKSDQNVTELYDVSLSVSPDVTSMITFCILIEDTKRLLSPP 231
QY 216 GQNTAEILIPELPATHPQNRTHV--LLGSIILFLIVSVTLFLRKROYMLDVEKCG 273
232 ---FSIELEDPPPPDHP-----WITAVLPYIICVAVFCILMKKKKKRPRNSYKCG 283
DB 274 VEDTSSKNRNDTQEE 289
DB 284 TMTMERESQTKRRE 299

RESULT 14
US-08-280-757B-2
Sequence 2, Application US/08280757B
Patent No. 6130316
GENERAL INFORMATION:
APPLICANT: Freeman, Gordon J.
APPLICANT: Nadler, Lee M.
APPLICANT: Gray, Gary S.
APPLICANT: Greenfield, Edward
TITLE OF INVENTION: No. 6130316el CTLA4/CD28 Ligands and
NUMBER OF SEQUENCES: 53
CORRESPONDENCE ADDRESS:
ADDRESS: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston
STATE: Massachusetts
COUNTRY: USA
ZIP: 02109

COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/280,757B
FILING DATE: 26-JUL-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/101,624
FILING DATE: 26-JULY-1993
APPLICATION NUMBER: 08/109,393
FILING DATE: 19-AUG-1993
APPLICATION NUMBER: 08/147,773
FILING DATE: 3-NOV-1993
ATTORNEY/AGENT INFORMATION:
NAME: Mandragoras, Amy E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: RPI-004CP2
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 329 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-280-757B-2

Query Match 11.6%; Score 176.5; DB 3; Length 329;
Best Local Similarity 23.1%; Pred. No. 4.1e-10;
Matches 73; Conservative 57; Mismatches 109; Indels 77; Gaps 15;

QY 18 AFTTAPRLDYVEY-GSNVTMECRFYERELDLALVYWEKEDEYOIOYV-AGEEDLK 75
17 AFLTSGAPRLKIOAYFNTADLPQFANSQNSLSELYVFMODENLALNEVYLKEKEFD 76
QY 76 PQHNSFRGRALPQDLKGNALQITDKODAGVCCISYSGADVKRTITLKNAAYR 135
77 SVHSKRYMGRTSDSD-----SWTLRLHNLQIKDKGLYQCII-----HKKKPTGMIR--IH 124
DB 136 KINORISVDPATSEHELI-----COA-EGYPEAEVITWNSDHPVSGKRSV 180
125 QMNSLSVLANFSQPEIYISNITENYINLTCSIHGYPEPK-----KMSV 171
QY 181 -----TTSRTGEM-----LLNVTSSLRV---NATANDVRYC-----TFMRROP 215
172 LTRTKNSTEYDGIQKSDQNVTELYDVSLSVSPDVTSMITFCILIEDTKRLLSPP 231
QY 216 GQNTAEILIPELPATHPQNRTHV--LLGSIILFLIVSVTLFLRKROYMLDVEKCG 273
232 ---FSIELEDPPPPDHP-----WITAVLPYIICVAVFCILMKKKKKRPRNSYKCG 283
DB 274 VEDTSSKNRNDTQEE 289
DB 284 TMTMERESQTKRRE 299

RESULT 15
PCT-US95-02576-23
Sequence 23, Application PC/TUS9502576
GENERAL INFORMATION:
APPLICANT:
TITLE OF INVENTION: Novel Forms of T Cell Costimulatory Molecules
NUMBER OF SEQUENCES: 65
CORRESPONDENCE ADDRESS:
ADDRESS: LAHIVE & COCKFIELD
STREET: 60 State Street, Suite 510
CITY: Boston


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: STATE: Massachusetts
: COUNTRY: USA
: ZIP: 02109-1875
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: ASCII Text
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: PCT/US95/02576
: FILING DATE:
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US 08/205,697
: FILING DATE: 02-Mar-1994
: ATTORNEY/AGENT INFORMATION:
: NAME: Mandragoras, Amy E.
: REGISTRATION NUMBER: 36,207
: REFERENCE/DOCKET NUMBER: BWI-120CPPC
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (617)227-7400
: TELEFAX: (617)227-5941
: INFORMATION FOR SEQ ID NO: 23:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 329 amino acids
: TYPE: amino acid
: TOPOLOGY: linear
: MOLECULE TYPE: protein
: PCT-US95-02576-23

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Query Match      11.6%; Score 176.5; DB 4; Length 329;
Best Local Similarity 23.1%; Pred. No. 4.1e-10;
Matches 73; Conservative 57; Mismatches 109; Indels 77; Gaps 15;

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QY 18 AFITTAPOKDIYVEY-GSNTMCECPREVERELDLALVYWEKEDQVIOFV-AGEEDLK 75
Db 17 AFLUSGAAPLKIDAYFNETADLPQCFANSOSQSLSELVFWQDQENLVINEVYLGRKEFD 76
QY 76 POHSNFRGRASLPKQDLKGNALQITDVKLODAGVYCCIIISYGADYKRITLKVAPYR 135
Db 77 SVHSKYWGRTSPDSD-----SWTLRLHNLQIKRKGIXCII-----HHKPTGMIR-1H 124
QY 136 KIMORISVDPAITSEHELLI-----CQA-EGYPEAEVITWNSDHOVSGKRSV 180
Db 125 QMNSSELVLANFQPEIVPISNITENVYINLTCSIHGYPERK-----KMSV 171
QY 181 -----TTSRTSGM-----LLNVTSSLRV---NATANDVFC-----TFWRSP 215
Db 172 LLRTKNSITETDGMOKSODNVTETYDVSISVSFDPVTSNMTIFCILETDKTRLSSP 231
QY 216 GQHTAELLIPELPATHPPONRTHWV--LGSILFLIYVSTVLEFLRKQVRMLDVEKCG 273
Db 232 ---FSIELEDPPQPPPHIP-----WITAVLPYIICVWVFCILIMKKKKRRPRNSYKCG 283
QY 274 VEDTSSKNRNDIOFEE 289
Db 284 TMTERESEQOTKRE 299

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Search completed: March 17, 2001, 09:44:52
Job time: 91 sec

